

Specification of Robert Clark : consumption or prevention of smoke in furnaces.

Contributors

Clark, Robert.

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A.D. 1857, 21st OCTOBER. N° 2686.

S P E C I F I C A T I O N

OF

ROBERT CLARK.

CONSUMPTION OR PREVENTION OF
SMOKE IN FURNACES.

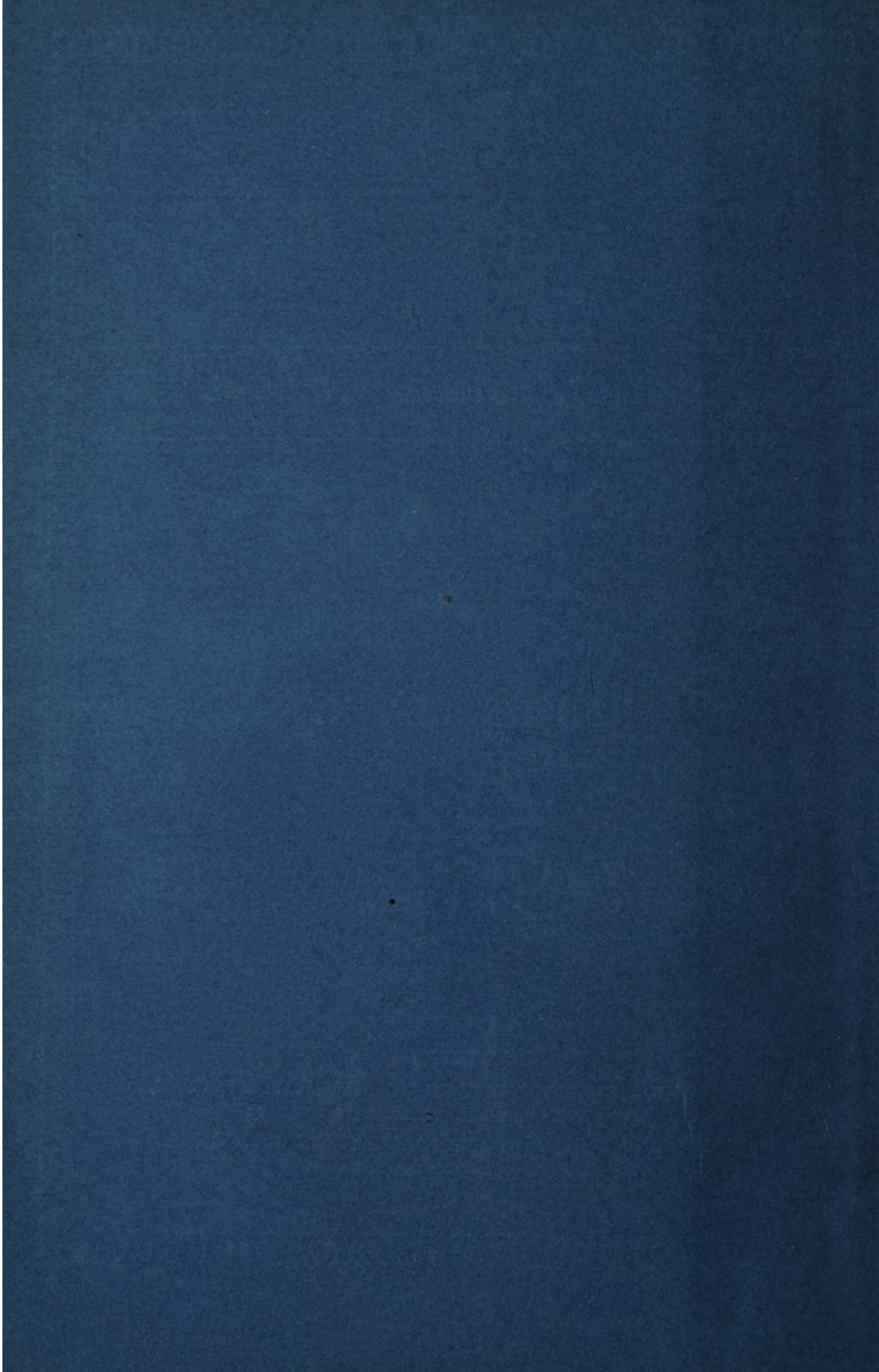
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A.D. 1857, 21st OCTOBER. N^o 2686.

Consumption or Prevention of Smoke in Furnaces.

(This Invention received Provisional Protection, but notice to proceed with the application for Letters Patent was not given within the time prescribed by the Act.)

PROVISIONAL SPECIFICATION left by Robert Clark at the Office of the Commissioners of Patents, with his Petition, on the 21st October 1857.

I, ROBERT CLARK, of Glasgow, in the County of Lanark, North Britain,
5 Bleacher and Finisher, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN EFFECTING THE CONSUMPTION OR PREVENTION OF SMOKE, APPLICABLE TO STEAM BOILERS AND OTHER FURNACES," to be as follows, that is to say:—

This Invention relates to the consumption or prevention of smoke in
10 furnaces of various kinds, by causing the unconsumed gaseous products of one fire to pass through or over the incandescent fuel in another.

In carrying out this Invention with reference, for instance, to a single steam boiler, it is preferred to fire the boiler at both ends by two separate and distinct furnaces. These furnaces are supplied with fresh coal alternately,
15 and their flues are so fitted up with dampers, that the gaseous currents may be diverted to follow alternated courses, as may be desired. For example, when one furnace has been newly fed with coal, the gaseous current of thick smoke from it is made to traverse through or beneath the boiler, and enter the other furnace, where the combustible matter is consumed, and the
20 combined currents then pass through proper flues to reach the chimney.

When there are several boilers working in concert, the plans may be

Clark's Impts. in Effecting the Consumption or Prevention of Smoke in Furnaces.

variously arranged. Supposing that there are three boilers, one only need have furnaces in it, one at each end, whilst the other two are entirely heated by the effect of the combined currents from the furnace boiler. According to this arrangement, the thick smoke from one furnace is caused to pass through or beneath the boiler, as before described, so as to reach the furnace, 5 which is filled with incandescent fuel, and the combined currents are then directed by adjustable dampers or valves through suitable flues, and through or beneath the other two boilers, one half of the combined currents going through or beneath each boiler. Instead of causing the thick smoke to pass as herein-before described, the converse may be adopted, making the heated 10 current from the incandescent fuel to pass through or in contact with the green fuel.

This system is applicable to a great variety of furnaces other than those appertaining to steam boilers.

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Printers to the Queen's most Excellent Majesty. 1858.